

Title (en)

INVERTER FOR AN ELECTRIC MOTOR OR GENERATOR

Title (de)

UMRICHTER FÜR EINEN ELEKTROMOTOR ODER GENERATOR

Title (fr)

ONDULEUR POUR MOTEUR ÉLECTRIQUE OU GÉNÉRATEUR

Publication

EP 3011670 A1 20160427 (EN)

Application

EP 14736026 A 20140606

Priority

- GB 201310940 A 20130619
- IB 2014062021 W 20140606

Abstract (en)

[origin: GB2515318A] An inverter for an electric motor or generator comprises a number of inverter legs. Each inverter leg comprises first and second inverter switches 851, 852 configured so that the coupling of positive and negative power rail lines to an inverter leg 830 are located adjacent to each other on one side of a circuit board 510 with the phase winding of the electric motor being coupled to the leg of the inverter on the opposite side of the circuit board. This arrangement minimises the current loop area within the inverter. First and second diodes 861, 862 may be connected antiparallel to, and mounted adjacent to, the first and second inverter switches respectively. The inverter may be for an electric motor, where the electric motor is for use in a wheel of an electric vehicle. The motor may be of the type having a set of coils being part of the stator for attachment to a vehicle, radially surrounded by a rotor carrying a set of magnets for attachment to a wheel.

IPC 8 full level

H02M 7/00 (2006.01)

CPC (source: EP GB US)

H02K 11/33 (2016.01 - GB); **H02M 7/003** (2013.01 - EP GB US); **H02M 7/5387** (2013.01 - GB); **H02P 6/14** (2013.01 - US);
H02P 27/06 (2013.01 - US); **H01L 2224/0603** (2013.01 - EP); **H01L 2224/48091** (2013.01 - EP US); **H01L 2224/48139** (2013.01 - EP US);
H01L 2224/48227 (2013.01 - EP US); **H01L 2224/48472** (2013.01 - EP US); **H01L 2224/49111** (2013.01 - EP US);
H01L 2924/13055 (2013.01 - EP US); **H01L 2924/13091** (2013.01 - EP US); **H01L 2924/19107** (2013.01 - EP US)

Citation (search report)

See references of WO 2014203112A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

GB 201310940 D0 20130731; GB 2515318 A 20141224; GB 2515318 B 20160518; CN 104242682 A 20141224; CN 104242682 B 20171205;
EP 3011670 A1 20160427; JP 2016523504 A 20160808; JP 6389877 B2 20180912; KR 101949250 B1 20190218; KR 20160021825 A 20160226;
US 2016149525 A1 20160526; US 9729092 B2 20170808; WO 2014203112 A1 20141224

DOCDB simple family (application)

GB 201310940 A 20130619; CN 201410276722 A 20140619; EP 14736026 A 20140606; IB 2014062021 W 20140606;
JP 2016520774 A 20140606; KR 20167000921 A 20140606; US 201414900145 A 20140606